

MEETING NOTES – EMERGING GENERATION AND ENERGY STORAGE

MEETING: EMERGING GENERATION AND ENERGY STORAGE
DATE: Friday, 8 December 2017
TIME: 1.00pm – 5.00pm
LOCATION: Melbourne Boardroom (with Blue Gum, Bluebell and Heath Breakout Rooms), Sydney Tamarama, and Brisbane Fraser)

ATTENDEES:

NAME	COMPANY / DEPARTMENT
Tim Biggar	Ergon Energy
Paul Dunn	AER
Elisabeth Brinton	AGL
Greg Abramowitz	AGL
Michael Zammit	AGL
Stephanie Bashir	AGL
Michael Irlam	Amp Control Group
Tom Hallam	AusNet Services
Chris Streets	Energy Australia
Naresh David	Energy Australia
Chris Murphy	Meridian Energy/ Telstra/ Powershop
Andy Evans	Off Shore Energy
Piera Lorenz	Telstra Energy
Sam Fyfield	Tilt Renewables
Kate Summers	Pacific Hydro
Victoria Mollard (part)	AEMC
Ben Davis	AEMC
Charlie Cao	B E Power
Audrey Zibelman (part)	AEMO
Jo Witters	AEMO
Taryn Maroney	AEMO
Luke Robinson	AEMO
David Ripper	AEMO
Glenn Wrest (part)	AEMO
Christian Schaefer	AEMO
Damien Sanford (part)	AEMO
Ruth Guest	AEMO

1. Meeting objective

To identify and collate stakeholder ideas and views on the existing NEM arrangements for registering/connecting emerging generation and energy storage. AEMO will use this information to inform its short-term and long-term initiatives including its review of the appropriate NEM arrangements for the efficient integration of energy storage. In undertaking that review, AEMO views stakeholder collaboration as essential to ensure any identified changes and the plan to address these addresses changing stakeholder and market needs.

AEMO welcomes frank input from parties at this session and would like to see this as the start of a conversation to develop ideas further together.

2. Meeting themes

A number of key themes emerged from the discussions. These included:

- Unprecedented number of registration and connection enquiry and associated activities
- Improving communication and co-ordination, including the website, AEMO contacts, NSPs/ developers/ AEMO
- The connection process could be arduous and a market barrier – information on where to connect, coordination and communication needs improvement
- A potential new category needed for registering energy storage
- A growing market need for sharing the cost of private and exempt networks and 'disaggregating' generating systems to allow multiple owners and operators
- Flexible rules needed to facilitate the transition to new technologies
- Challenges over power system/frequency control as the market moves to more non-synchronous generation and a more customer driven market
- Large-scale batteries needing to access all markets possible for monetisation
- Co-location of generation, including different technologies e.g. batteries with wind farms/solar farms
- Arrangements needing to be flexible and agnostic regarding technologies.

3. Meeting notes

STAKEHOLDER CHALLENGES
<p>Regulatory:</p> <ul style="list-style-type: none"> • Market change process (including rule changes) takes too long • New Generation and storage scenarios with different ownership structures (SPVs, multiple parties involved in ownership – different owners for turbines) and financing challenges (PPAs and financing agreements) • Embedded networks posing challenges • Need for greater co-ordination across regulatory processes • Changes may also be needed for emerging generation, not just energy storage
<p>Information:</p> <ul style="list-style-type: none"> • AEMO website: <ul style="list-style-type: none"> - Concerns re hard to find information (or the right info) and not user friendly • Difficult for new players to access AEMO people as the 'right person' is unknown. Existing participants find it easier as the know AEMO people who can help them
<p>Registration:</p> <ul style="list-style-type: none"> • Registration should be simple, not conditional • Registration needs to happen at the end – the issues is that all studies/ work licences need to be organised beforehand
<p>Connection:</p> <ul style="list-style-type: none"> • An unprecedented number of registration and connection enquiry and associated activities • Inconsistencies in NSP responses across jurisdictions, e.g.: <ul style="list-style-type: none"> - Queuing policies make decision-making difficult - Lack of information provided early in the connection process about where to connect makes it difficult to make an informed economic decision

STAKEHOLDER CHALLENGES

- Churn of staff at NSPs – pressure on staff
- Co-ordination and communication
 - Better co-ordination and a lower friction connection process is needed – reduced touchpoints. e.g. QLD NSPs setting a high standard for this.
 - Need for industry/NSPs to co-ordinate efforts, e.g. ARENA work, for visibility of connections across the NEM – noting there may be confidentiality concerns
 - Currently NSPs are not sharing insight and best practice. Co-ordination and engagement needs improvement
- AEMO-NSP, clarity is needed over what role AEMO is acting in, i.e. Vic-NSP function or AEMO
- Certainty over GPS and connection agreement is needed for financing:
 - Discussions need to be timely and efficient, not revised. AEMO shouldn't reassess the GPS at registration (already at point of commercial close) – should be firm unless there are technical changes
 - Clarity regarding AEMO 5.3.4A

Distributed resources:

- Need to assess if the Rules fit new needs, particularly for SGA
- Need to meet customer expectations

Exempt networks:

- Applicability of the GPS in exempt networks. AER consultation regarding AER removing one deemed exemption category and will instead consult AEMO on network exemptions where generators are being connected.

NEW GENERATION AND RESOURCE SCENARIOS

- Expect to see the creation of micro grids
- Don't want barriers to existing solar farm/wind farm expanding with new hybrid investment
- Private/embedded networks – consider the merit of these and the regulatory requirements
- DSR – change from a passive to an active consumer to solve issues and problems and a permanent feature of the NEM
- Large-scale batteries as stand-alone that can access all possible markets
- Co-location of generation, including different technologies e.g. batteries with wind farms/solar farms

IDEAS TO ENHANCE THE NEM'S FRAMEWORK

- Registration – separate storage category needed
- Need a framework that works across all portfolios and market based solutions
- Standards based participation and engagement
- Allow multiple ownership and separate financial parties with independent dispatch control for the same project, with application of the same GPS
- Need to encourage agile loads/services

To take into account:

- That the framework may not need to be changed
- Need to use all the tools already available – e.g. AEMO systems– SGA related

IDEAS TO ENHANCE THE NEM'S FRAMEWORK

- Right sized requirements to fit the problem to ensure we mitigate the right risks and then change standards to reflect this
- To make the future scenarios work we need to consider how to accommodate network charges, consider how we deal with excess power capacity and how this can be enabled.
- There is a need to unlock the value stack including for network charges:
 - cost reflective
 - lowers costs to everyone
- Need clear signals re value of services – framework needs to change to reflect needs
- The NER arrangements need to be flexible as the technology continues to develop
- Regulatory creep over 20 years – need less rules not more and ones that focus on principles and the fundamentals of what's needed
- Co-ordination of technical capabilities and market requirements is required
- Need to meet the fundamental power system needs first - need clear technical standards and frequency standards
- Rules should be agnostic about the technology
- A move from a top down (existing) to a bottom up (new) model threatens assumptions regarding control of the power system and distributed control
- Important for there to be competency regarding asset operation

4. Next steps

AEMO would like to take this opportunity to thank all parties for their frank and open input into this session and look forward to continuing discussions in the New Year.

AEMO will organise a further workshop with stakeholders after it has considered stakeholder ideas and feedback. Where relevant, AEMO will identify where these are being addressed by different initiatives, likely in late January 2018.